

CLAIMS

1. A diode 2 comprising a connecting means 6 and a heat sink base 7;
said connecting means 6 comprising a flat end 5 fixed at a die 16 and
the other end having no fixed shape;
said heat sink base 7 comprising;
 - 5 a base 18 which is on the bottom of the heat sink base 7;
 - a press-fit region 4 which is around said base 18;
 - a solder platform which is above said base 18;
 - a die 16 which has a first side and a second side electrically coupled to
said flat end 5 and said solder platform 17, respectively;
 - 10 a shoulder 12 which is extended acclivitously from said solder platform
17, the root of said shoulder 12 connected to said solder platform 17 having
a kink; and
 - a cup 14 which is extended upwardly from the periphery of said base 18.
2. The diode 2 of Claim 1, wherein said shoulder 12 has a height which
is substantially the same as said die 16.
3. The diode 2 of Claim 1, wherein said connecting means 6 is a lead
wire.
4. The diode 2 of Claim 1, further comprises two solder layers 15a and
15b which sandwich said die 16 above and under, respectively.
5. The diode 2 of Claim 4, further comprises passivative material 10
used to surround said wafer 16.
6. The diode 2 of Claim 5, further comprises an epoxy 8 for
surrounding outside said passivative material 10.

US-3827

- 9 -

LELI 3495

Express Mail No. EV 272754615 US

PATENT

7. The diode 2 of Claim 6, further comprises a protective sheath 20 for surrounding said epoxy 8 inside said cup 14.

8. The diode 2 of Claim 6, further comprises a protective sheath 20 for surrounding said epoxy 8 outside said cup 14.